REMARKS

Claims 1-2 and 4-24 are now pending in this application. No new matter has been added. It is respectfully submitted that the pending claims define allowable subject matter.

Claims 1, 2 and 6-8 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Short (U.S. Patent 5,161,535). Applicants respectfully traverse the 35 U.S.C. § 102(b) rejection.

Short describes a medical ultrasound imaging system having a partitioned menu wherein a reduced set of control functions for each ultrasound mode (control set) is provided while allowing the user instant access to any control set regardless of the current system mode (column 1, lines 60-65). A menu driven control panel 10 of the ultrasound imaging system 1 features a flat menu hierarchy to partition the ultrasound system controls into smaller control sets specific to each of the different system modes. The control sets are divided into menu items, with each menu item typically controlling one system function. Control panel 10 includes a flat electroluminescent touch panel 12 (EL panel) and soft controls 14 for displaying menu items to the user. The user touches a menu item displayed on the EL panel to select that menu item, and the ultrasound system responds accordingly. A row of soft controls 14, which are rotatable soft controls in the preferred embodiments is positioned below and adjacent to the EL panel. Each rotatable control operates according to a corresponding function displayed on the adjacent EL panel (column 3, lines 23-39) A different function with a different identifier is provided based on the mode of operation (column 4, lines 7-13 and Figs. 4(a)-5(b)).

Claim 1, as amended, recites a user interface for controlling an ultrasound system comprising a "plurality of selectable elements operable responsive to voice commands and configured to change based on a mode of operation of the ultrasound system, the plurality of identifiers remaining the same for each of the modes of operation and operable to activate the associated control command of the selectable element based on the mode of operation." Short fails to describe of suggest an ultrasound system as recited in claim 1. In particular, Short fails to describe or suggest selectable elements that are responsive to voice commands. Additionally, Short (and the other prior art references discussed in more detail below), each have labels or menu descriptions associated with functions that change based on the mode of operation. In contrast, the ultrasound system recited in claim 1 includes a plurality of

identifiers remaining the same for each of the modes of operation. Thus, in contrast to the cited art, wherein a different label is provided with each menu item based on the mode of operation, thereby requiring a different command or control operation associated therewith, the ultrasound system recited in claim 1 has identifiers that remain the same for selectable elements that change based on the mode of operation. Accordingly, Short and the other cited prior art does not describe or suggest an ultrasound system as recited in claim 1.

Claims 2, 6-8 and newly added claim 24 each depend from independent claim 1. When the recitations of claims 2, 6-8 and 24 are considered in combination with the recitations of claim 1, Applicants submit that dependent claims 2, 6-8 and 24 are likewise patentable over Short for at least the same reasons set forth above.

Claims 12-23 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Murphy (U.S. Patent 5,544,654). Applicants respectfully traverse the 35 U.S.C. § 102(b) rejection.

Murphy describes voice control of a medical ultrasound scanning machine wherein a plurality or sub-groups having fewer voice commands that the total available voice commands is provided (column 3, lines 24-35). A structure vocabulary defines a total vocabulary that is divided into smaller sub-vocabularies (column 5, lines 33-35). The sub-vocabularies may be selected and deselected as part of the active vocabulary (column 8, lines 18-22) and may be based on the state of the ultrasound system (column 9, lines 29-31). Macros, that change based on the state of the machine, are also provided to allow a multiple step operation based on a single command (column 15, lines 7-66). A one-to-one mapping between the vocabulary-determining-states and the sub-vocabularies is provided (column 13, lines 11-15).

Claim 12, as amended, recites a voice controlled ultrasound system comprising "a voice control input for receiving voice commands corresponding to control commands for controlling the ultrasound system, the control commands provided based on a mode of operation of the ultrasound system and including a plurality of generic voice commands, the plurality of generic voice commands unchanged for each of the modes of operation and corresponding to different control commands based on the mode of operation." Murphy fails to describe or suggest a voice controlled ultrasound system as recited in claim 12. In particular, Murphy fails to describe or suggest a plurality of generic voice commands that are

unchanged for each of the modes of operation and correspond to different control commands based on the mode of operation. In contrast, the system of Murphy provides only a single vocabulary including all the commands an operator is allowed to speak and then subdivides the vocabulary, which may be based on the state of the ultrasound machine (column 8, lines 31-42). Thus, different commands and sub-vocabularies are used to control the ultrasound system in different modes of operation. Murphy simply does not describe or suggest using generic voice commands that are unchanged for each of the modes of operation and that also correspond to different control commands based on the mode of operation. The voice commands of Murphy cannot correspond to different control operations in different modes of operation, but only to the same control operations in different modes. Accordingly, Murphy and the other cited prior art does not describe or suggest a voice controlled ultrasound system as recited in claim 12.

Claims 13-17 each depend from independent claim 12. When the recitations of claims 13-17 are considered in combination with the recitations of claim 12, Applicants submit that dependent claims 13-17 are likewise patentable over Murphy for at least the same reasons set forth above.

Claim 18, as amended, recites a method for controlling an ultrasound system comprising "associating the voice command with a control command to control the operation of the ultrasound system and if the voice command is a generic voice command, determining the mode of operation of the ultrasound system and translating the generic voice command to a corresponding physical control input, the corresponding physical control input different for different modes of operation with the generic voice command unchanged for each of the modes of operation." Murphy fails to describe or suggest a method as recited in claim 18. In particular, Murphy fails to describe or suggest generic voice commands that are unchanged for each of the modes of operation and determining the mode of operation of the ultrasound system and translating the generic voice command to a corresponding physical control input if the voice command is a generic voice command. As described above, Murphy simply includes a vocabulary that may be divided into sub-vocabularies. No where in Murphy is it described or suggested to include generic voice commands are recited in claim 18. Accordingly, Murphy and the other cited prior art does not describe or suggest a method as recited in claim 18.

Claims 19-23 each depend from independent claim 18. When the recitations of claims 19-23 are considered in combination with the recitations of claim 18, Applicants submit that dependent claims 19-23 are likewise patentable over Murphy for at least the same reasons set forth above.

For at least the reasons set forth above, Applicants respectfully request that the 35 U.S.C. § 102 rejection of claims 1-2, 6-8 and 12-23 be withdrawn.

Claims 3-4 and 9-10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Short and further in view of Snider (U.S. Patent 5,553,620) alone, or further in view of Greenberg (U.S. Patent 6,514,201). Applicants respectfully traverse the 35 U.S.C. § 103(a) rejection.

Snider describes the use of menu branches associated with a patient's potential condition to aid in selecting suggested measurements during an examination (abstract). Snider also describes that an input device to the system could include a voice recognition system or touch screen system to control the menus (column 9, lines 45-50).

Greenberg describes a voice-enhanced diagnostic medical ultrasound system wherein a user can issue verbal commands to control the system, instead of using a mouse, keyboard or other user interface requiring physical manipulation (abstract). Voice commands can be associated with respective textual phrases (column 6, lines 50-60) and voice commands can be used to assign functions to a particular physical user input device, for example, a wheel (column 10, lines 37-54).

Even from a cursory reading of the Snider and Greenberg references, these references fail to make up for the deficiencies of the Short reference. In particular, neither of these references describe or suggest a plurality of identifiers remaining the same for each of the modes of operation and operable to activate the associated control command of the selectable element based on the mode of operation. The menu labels in each of these references change based on the mode of operation or the examination to be performed. Accordingly, when the recitations of claims 4 and 9-10 (claim 3 has been canceled) are considered in combination with the recitations of claim 1, Applicants submit that dependent claims 4 and 9-10 are likewise patentable over the cited art for at least the same reasons set forth above.

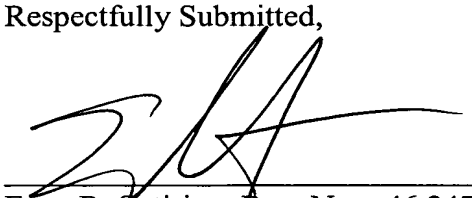
Claim 11 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Short and further in view of Uehara (U.S. Patent 6,485,421). Applicants respectfully traverse the 35 U.S.C. § 103(a) rejection.

Uehara describes an ultrasonic imaging system wherein the image brightness is controlled using lookup tables (column 12, line 4 to column 13, line 21). Even from a cursory reading of the Uehara, this reference fails to make up for the deficiencies of the Short reference. In particular, this reference does not describe or suggest a plurality of identifiers remaining the same for each of the modes of operation and operable to activate the associated control command of the selectable element based on the mode of operation. Accordingly, when the recitations of claim 11 are considered in combination with the recitations of claim 1, Applicants submit that dependent claim 11 is likewise patentable over the cited art for at least the same reasons set forth above.

For at least the reasons set forth above, Applicant respectfully requests that the 35 U.S.C. § 103 rejection of claims 3-4 and 9-11 be withdrawn.

In view of the foregoing amendments and remarks, it is respectfully submitted that the prior art fails to teach or suggest the claimed invention and all of the pending claims in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,



Evan R. Sotiriou, Reg. No.: 46,247
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070